

**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re the Application of:

COERSMEIER

Group Art Unit: Not yet assigned

Application No.: New Application

Examiner: Not yet assigned

Filed: March 12, 2004

Attorney Dkt. No.: 60282.00173

For: ERROR ADJUSTMENT FOR MULTI-ANTENNA TRANSMITTER

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

March 12, 2004

Sir:

Pursuant to 37 CFR §1.56, the attention of the Patent and Trademark Office is hereby directed to the information item(s) listed on the attached PTO-1449. Unless otherwise indicated herein, one copy of each item(s) is attached. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the item(s) be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

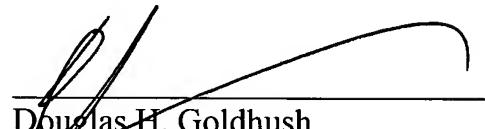
- 1. This Information Disclosure Statement is being filed (a) within three months of the U.S. filing date or the date of filing a CPA, OR (b) before the mailing date of a first Office Action on the merits in the present application, or (c) accompanies a Request for Continued Examination. No certification or fee is required.
- 2. This Information Disclosure Statement is being filed more than three months after the U.S. filing date AND after the mailing date of the first Office Action on the merits, but before the mailing date of a Final Rejection or Notice of Allowance.
- a. I hereby certify that each item of information contained in this Information Disclosure Statement was cited in a communication from a

foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 CFR §1.97(e)(1).

- b. I hereby certify that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 CFR §1.97(e)(2).
- c. A check in the amount of \$180.00 in payment of the fee under 37 CFR §1.17(p). Please charge any fee deficiency or credit any overpayment to Counsel's Deposit Account No. 50-2222 as needed to ensure consideration of the disclosed information.
- 3. This Information Disclosure Statement is being filed more than three months after the U.S. filing date and after the mailing date of a Final Rejection or Notice of Allowance, but before payment of the Issue Fee. Applicant(s) hereby petition(s) that the Information Disclosure Statement be considered. Attached is our check in the amount of \$130.00 in payment of the petition fee under 37 CFR §1.17(i)(1). Please charge any fee deficiency or credit any overpayment to Counsel's Deposit Account No. 50-2222 as needed to ensure consideration of the disclosed information.
- a. I hereby certify that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 CFR §1.97(e)(1).
- b. I hereby certify that no item of information in this Information Disclosure Statement was cited in any communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 CFR §1.97(e)(2).

In the event that there are any fees due with respect to the filing of this paper,  
please charge Counsel's Deposit Account No. 50-2222.

Respectfully submitted,



Douglas H. Goldhush  
Registration No. 33,125

**Customer Number 32294**  
SQUIRE, SANDERS & DEMPSEY LLP  
14<sup>TH</sup> Floor  
8000 Towers Crescent Drive  
Tysons Corner, Virginia 22182-2700  
Telephone: 703-720-7800  
Fax: 703-720-7802

DHG:scc

Enclosures: PTO-1449 Form; 5 References

|                                                                                   |                                                            |                               |                                 |                               |
|-----------------------------------------------------------------------------------|------------------------------------------------------------|-------------------------------|---------------------------------|-------------------------------|
| FORM PTO-1449                                                                     | U.S. DEPARTMENT OF COMMERCE<br>PATENT AND TRADEMARK OFFICE |                               | ATTY. DOCKET NO.<br>60282.00173 | SERIAL NO.<br>New Application |
| LIST OF REFERENCES CITED BY APPLICANT<br><i>(Use several sheets if necessary)</i> |                                                            | APPLICANT<br>COERSMEIER       |                                 |                               |
|                                                                                   |                                                            | FILING DATE<br>March 12, 2004 | GROUP<br>Not yet assigned       |                               |

**U.S. PATENT DOCUMENTS**

| EXAMINER INITIAL |    | DOCUMENT NO. | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
|------------------|----|--------------|------|------|-------|-----------|-------------|
|                  | AA |              |      |      |       |           |             |
|                  | AB |              |      |      |       |           |             |
|                  | AC |              |      |      |       |           |             |

**FOREIGN PATENT DOCUMENTS**

|  |    | DOCUMENT NO. | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION<br>YES    NO    PART. |
|--|----|--------------|------|---------|-------|-----------|-----------------------------------|
|  | AD |              |      |         |       |           |                                   |
|  | AE |              |      |         |       |           |                                   |
|  | AF |              |      |         |       |           |                                   |
|  | AG |              |      |         |       |           |                                   |
|  | AH |              |      |         |       |           |                                   |

**OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)**

|    |                                                                                                                                                                          |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AI | "High Precision Analog Front-End Transceiver Architecture for Wireless Local Area Network", Coersmeier et al, 6 <sup>th</sup> International OFDM-Workshop 2001, Hamburg. |
| AJ | "Comparison Between Different Adaptive Pre-Equalization Approaches for Wireless LAN", Coersmeier et al, IEEE PIMRC 2002, Lisbon, Portugal.                               |
| AK | "Adaptive Pre-Equalization in Analog Heterodyne Architectures for Wireless LAN", Coersmeier et al, IEEE RAWCON 2002, Boston, USA                                         |
| AL | "Software IQ Sample Estimation for Multi-Antenna Systems", Coersmeier et al, IEEE RAWCON 2003, Boston, USA.                                                              |
| AM | "Frequency Selective IQ Phase and IQ Amplitude Imbalance Adjustments for OFDM Direct Conversion Transmitters", Coersmeier et al.                                         |

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.